



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,917	07/03/2003	Shabbir Bambot	SPRX-021C1	5602
7590	04/05/2004		EXAMINER	
FLESHNER & KIM, LLP P.O. Box 221200 Chantilly, VA 20153-1200			STAFIRA, MICHAEL PATRICK	
			ART UNIT	PAPER NUMBER

2877

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,917

Applicant(s)

BAMBOT ET AL.

Examiner

Michael P. Stafira

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-22 is/are rejected.
- 7) ☐ Claim(s) 10, 11 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/3/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6, 9, 13-20, 22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, 8, 10-12, 15-20 of U.S. Patent No. 6,590,651. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed limitations are broader than the patented claims. The difference between the application is that some of the elements are claimed broader than what was patented and it would be obvious to one of ordinary skill in the art at the time of the invention that the claimed invention is an obvious variation because the patented elements are known to be used to improve the characteristics of the apparatus.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2877

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-4,6,7,12,13 are rejected under 35 U.S.C. 102(e) as being anticipated by Winston ('210).

Claim 1

Winston ('210) discloses an outer housing (Fig. 25, Ref. 152), an inner core (148) that is rotatably mounted within the outer housing, a plurality of interrogation devices (30) mounted on the inner core (148) in a predetermined pattern, and a detent mechanism (154) attached to the inner core (148), wherein the detent mechanism (154) is configured to allow the inner core (148) to be rotated between a plurality of predetermined rotational positions relative to the outer housing (Col. 10, lines 40-65).

Claim 2

The reference of Winston ('210) further discloses rotation of the inner core (148) from a first predetermined rotational position to a second predetermined rotational position causes the plurality of interrogation devices to be repositioned adjacent a second plurality of interrogation positions (Col. 1-2, lines 60-15). It is inherent in the reference of Winston ('210) that the rotation of the inner core (148) will view different positions so as to view all of the artery wall, therefore the reference of Winston ('210) reads on the claimed invention.

Claim 3

Winston ('210) further discloses that the instrument is configured such that the plurality of interrogation devices are repositioned to a plurality of predetermined interrogation positions

Art Unit: 2877

each time the inner core is rotated to a corresponding predetermined rotational position (Col. 1-2, lines 60-15).

Claim 4

The reference of Winston ('210) further discloses that none of the predetermined interrogation positions are coincident since the reference of Winston ('210) discloses rotating the core to view all of the artery wall (Col. 1-2, lines 60-15).

Claim 6

Winston ('210) further discloses that the interrogation devices are mounted on the inner core and are evenly spaced across the face of the core (See Fig. 25).

Claim 7

The reference of Winston ('210) further discloses that the plurality of interrogation devices comprise a plurality of optical fibers (Col. 4, lines 40-41).

Claim 12

Winston ('210) further discloses that the detent mechanism (154) is configured to support at least a portion of the inner core (148) inside the outer housing (152) (See Fig. 25).

Claim 13

Winston ('210) further discloses an end cap (Fig. 22, at the end of ref. 30a, no ref. number for cap).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2877

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5,14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winston ('210).

Claim 5

Winston ('210) discloses the claimed invention except for a predetermined pattern of interrogation devices to minimize cross-talk. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Winston ('210) with interrogation pattern since it was well known in the art that placing fibers in a pattern increase the area by providing a uniform illumination and receiving therefore increasing the sensitivity of the measurement.

Claims 14,15

Winston ('210) discloses the claimed invention except for providing index matching agent between the end cap and the interrogation device and to provide lubricant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Winston ('210) with index matching agent since it was well known in the art that the index matching agent decreases the amount of signal loss in the optical probe, therefore increasing the reliability of the measurement.

4. Claims 8,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winston ('210) as applied to claim 7 above, and further in view of Sato ('462).

Claim 8

Art Unit: 2877

Winston ('210) substantially teaches the claimed invention except that it does not show at least two optical fibers located at positions wherein one fiber transmits and the other receives. Sato ('462) shows that it is known to provide at least two fibers for transmitting and receiving (See Fig. 3) for detecting tissue. It would have been obvious to combine the device of Winston ('210) with the optical fibers of Sato ('462) for the purpose of providing remote inspection of inner cavities of a patent with minimal evasion.

Claim 9

Winston ('210) substantially teaches the claimed invention except that it does not show a detector array for light scattering from the target material by some of the optical fibers. Sato ('462) shows that it is known to provide a detector array for light scattering from a target (Fig. 4, Ref. 10a-10c) for an optical probe apparatus. It would have been obvious to combine the device of Winston ('210) with the detector array of Sato ('462) for the purpose of providing remote inspection of inner cavities of a patent with minimal evasion.

5. Claims 16,17 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato ('462).

Claim 16

Sato ('462) discloses an outer housing (Fig. 3, Ref. 5), a means for determining the characteristics of a target material at a plurality of interrogation positions (See Abstract), and means for holding the determining means in a plurality of predetermined positions relative to the outer housing (Fig. 3, Ref. 14).

Claim 17

The reference of Sato ('462) further discloses moving the determining means between a plurality of positions so as to determine the characteristics of a target (See Abstract). It is inherent in the reference of Sato ('462) that since the probe is scanning the tissue it is therefore at different positions, therefore reading on applicant's limitations.

6. Claims 18,19,20,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato ('462).

Claim 18

Sato ('462) discloses the claimed invention except for a predetermined pattern of interrogation devices to minimize cross-talk. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Sato ('462) with interrogation pattern since it was well known in the art that placing fibers in a pattern increase the area by providing a uniform illumination and receiving therefore increasing the sensitivity of the measurement.

Claim 19

Sato ('462) discloses the claimed invention except for an end cap. It would have been obvious matter of design choice to combine Sato ('462) with an end cap, since applicant has not disclosed that the end cap solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with probe ends disclosed in Sato ('462).

Claim 20

Sato ('462) discloses a method of positioning a plurality of interrogation devices that are in a pattern adjacent a plurality of positions on a target material (See Fig. 3). Sato ('462) further

Art Unit: 2877

discloses detecting the characteristics of the target material at the first plurality of positions (See Abstract). The reference of Sato ('462) further discloses repositioning the plurality of interrogation devices relative to the target material and detecting the characteristics of the target material at the additional positions (See Abstract). It is inherent in the reference of Sato ('462) that since the probe is use for scanning a tissue or organ that the probe is repositioned and therefore reads on applicant's limitations.

Claim 22

Sato ('462) further discloses detecting a first and second characteristics of the target material (See Abstract). It is inherent in the reference of Sato ('462) that since the probe scans the tissue surface multiple characteristics are going to be measured therefore, Sato ('462) reads on applicants limitations.

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato ('462) as applied to claim 20 above, and further in view of Winston ('210).

Claim 21

Sato ('462) substantially teaches the claimed invention except that it does not show rotating the plurality of interrogation devices around a common axis. Winston ('210) shows that it is known to provide a plurality of interrogation rotated around a common axis (Fig. 25) for an optical probe. It would have been obvious to combine the device of Sato ('462) with the rotational means of Winston ('210) for the purpose of providing uniform illumination of the test surface.

Art Unit: 2877


Allowable Subject Matter

8. Claims 10,11,23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Michael P. Stafira
Primary Examiner
Art Unit 2877

March 31, 2004